



BUREAU OF
RECLAMATION



Update on 5-year Review of Management Triggers for Humpback Chub

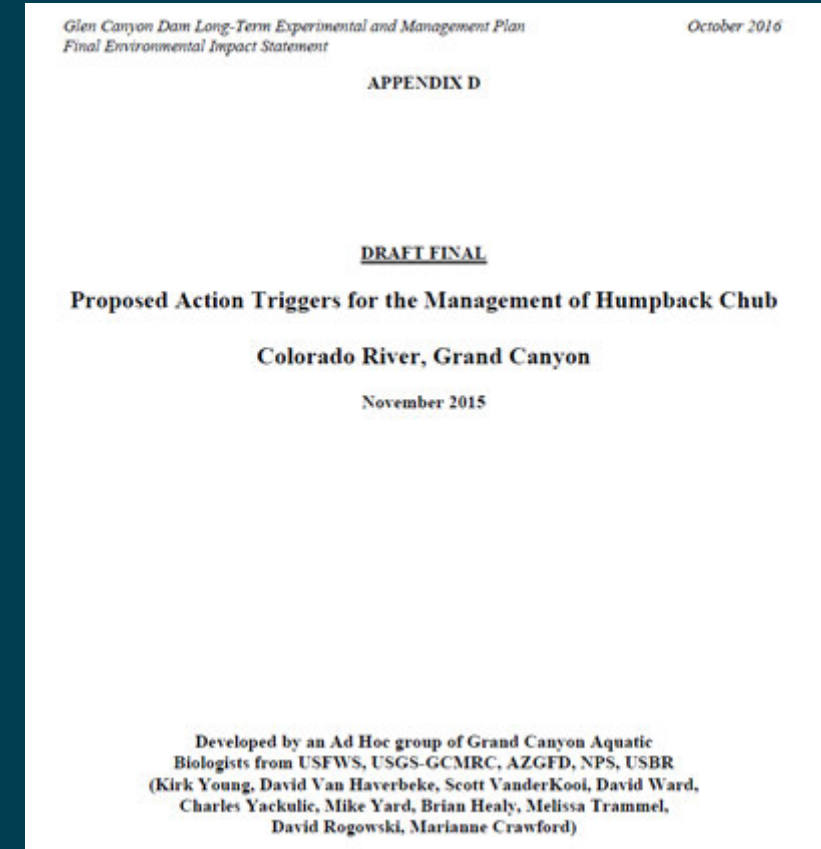
Technical Work Group Meeting

October 14, 2021

Kerri Pedersen, Bureau of Reclamation & Kirk Young, U.S. Fish & Wildlife Service

Two Topics Related to Trigger

- Tier 1 Response
 - Threshold exceeded for sub-adults
 - Poor production
 - Conservation actions (listed in trigger document)
 - Additional HBC translocated
- Trigger review
 - ≤ 5 years
 - Evaluate & adjust



Management Triggers for Humpback Chub (Appendix O of EIS/Appendix D of BA)

- **Purpose**

- Identifies criteria for conservation actions & mechanical removal
- Minimizes likelihood of mechanical removal – early intervention of conservation actions
- Regulatory document

- **Review every 5 years**

- 2021 – first update to document



Review Process

- **Assembled team of GC agency biologists (FWS, Reclamation, GCMRC, AZGFD, NPS, Navajo Nation, Hualapai Tribe)**
- **Series of 3 meetings**
- **Solicited input from TWG on comments/concerns - existing triggers**
- **Team reviewed & edited document**
- **Meeting topics summarized in Appendix**



Updates to Trigger Document

- **Assessed/updated technical assumptions & conservation action options**
- **Clarity of document**
- **Identified topics for additional evaluation**
 - **Western Grand Canyon - expansion drivers and resiliency of population**
 - **Bioeconomic model – incorporate immigration & sensitivity analysis**
 - **Predator index - concept needs to be explored and expanded**



Next Steps

- Review by solicitors
- Official transmittal from Reclamation to FWS
- Distribute final version



Questions?

